US Army Corps of Engineers®
Engineer Research and Development Center

Detection and Evaluation of Scour Protection for Navigation Dams

Description

The objectives of this research are to: 1) identify the most effective method(s) for determining the condition of the existing scour protection and 2) develop a risk-based decision process to assist in developing the type and the timing of the repair and/or rehabilitation requirements needed to ensure project performance.

Issue

Scour has occurred upstream and downstream from essentially every navigation dam constructed. The severity of the scour varies greatly from project to project. Periodic inspections have been used in the past to assess the need for repair. Often these inspections do not provide enough information to adequately assess the extent of scour and the repair and/or rehabilitation requirements. Establishing a process to better identify the extent of scour and better assess repair and rehabilitation requirements will provide a technique needed to conduct analyses to determine project performance and allow program managers to decide the best investment for achieving system reliability.

Users

Corps field offices responsible for developing economic and reliability analyses for scour protection.

Products

A demonstration project will be conducted to help evaluate the most effective method(s) to determine the extent of scour and results of the demonstration will be provided in a technical report. A risk-based decision process will be incorporated into a computer program to aid project managers in developing the type and timing of repair or rehabilitation efforts. A technical report that describes the computer program and summarizes the research results will also be produced

Benefits

Establishing a process to better assess repair and rehabilitation requirements will provide project managers with valuable information for planning project needs and costs.

Corps Program

Navigation Systems Research Program, Mr. James Clausner, Program Manager.

Point of Contact

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